

Work Order ID 148447

148447

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Thursday, June 30, 2016 12:43:41 PM

Item ID: D5350-043-3 Accept *N900040100* Setup Start *NS1*
 Revision ID: R66 FWD BEAM Stop *NS2*
 Item Name: ~~Aft Beam Assembly~~
 Start Date: 07/06/2016 Start Qty: 1.00 *1* Cust Item ID:
 Required Date: 08/03/2016 Req'd Qty: 1.00 *1* Customer:

Reference:

Approvals: Process Plan: *[Signature]* Date: _____ Tooling: _____ Date: _____ Run Start *NR1*
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
D5350	B

100 0.01

100

Bandsaw Memo 0.01

~~Leaspa Bandsaw~~ CUT BLANK 66.25" *N/A*

110 0.06 *Water Pot. See Attached E-mail.*

110

HAAS 1 Memo 0.25

~~HAAS CNC vertical machine #1~~ MILL AS PER FOLIO FB *N/A* AND DWG D5350

FOLIO REV: *N/A*
 DWG REV: *10*

DEBURR

120 Manual Mill

DAS
 32
 9-89
 16-07-06

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Item ID: D5350-043 Accept ***N900040100*** Setup Start ***NS1***
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 Item Name: Aft Beam Assembly
 Start Date: 07/06/2016 Start Qty: 1.00 ***1*** Cust Item ID:
 Required Date: 08/03/2016 Req'd Qty: 1.00 ***1*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120	QC2- Inspect parts off machine FA/FAIB	0.00							DAS 32 9-89
120									
QC	Memo	0.00							16-07-06
Quality Control									
150	QC8- Inspect parts - second check	0.00							DAS 9 9-89
150									
QC	Memo	0.00							16-07-19
Quality Control									
160	Chemical Conversion Coat per QS1005 4.1	0.00							
160									
HandFinish	Memo	0.04							
Hand Finishing									

n/a

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Item ID: D5350-043 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Aft Beam Assembly
Start Date: 07/06/2016 Start Qty: 1.00 ***1*** Cust Item ID:
Required Date: 08/03/2016 Req'd Qty: 1.00 ***1*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
170 *170* QC Quality Control	QC7-Inspect Chemical Conversion Coat Memo	0.00 0.00				_____	_____	_____	_____
171 *171* Powdercoat Powder Coating	White Gloss(Ref: 4.3.5.1) per QSI005 4.3-Alum Memo MASK HOLES AS PER NOTE 8 START TIME: _____ OVEN TEMPERATURE: _____ FINISH TIME: _____	0.00 0.03				_____	_____	_____	_____
172 *172* QC Quality Control	QC3- Inspect Part Finish Memo	0.00 0.00				_____	_____	_____	_____

N/A [Signature]

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Item ID: D5350-043 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Aft Beam Assembly
Start Date: 07/06/2016 Start Qty: 1.00 ***1*** Cust Item ID:
Required Date: 08/03/2016 Req'd Qty: 1.00 ***1*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
180		0.00							
180									
Small Fab	Memo	0.04							
Small Fab	ASSEMBLE AS PER DWG SEE NOTE 9 FOR TORQUE SPEC ON NUTS								
190		0.00							
190									
QC	Memo	0.00							
Quality Control									
200		0.00							
200									
Packaging	Identify as per dwg & Stock Location: _____	0.00							
Packaging	Memo	0.00							

N/A
SEE ATTACHED
E-MAIL

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Item ID: D5350-043 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Aft Beam Assembly
Start Date: 07/06/2016 Start Qty: 1.00 ***1*** Cust Item ID:
Required Date: 08/03/2016 Req'd Qty: 1.00 ***1*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
210	QC21- Final Inspection - Work Order Release	0.00							
210									
QC	Memo	0.02							
Quality Control									

RD 16 - 1016-01

U 1607.20

Picklist Print

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Work Order ID: 148447

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Parent Item: D5350-043

D5350-043

Parent Item Name: Aft Beam Assembly

Start Date: 07/06/2016

Required Date: 08/03/2016

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP REV:A 15.12.11 NEW ISSUE DD VERF:JLM IPP
REV:B 16.01.25 rev.a dwg DD VERF:JLM IPP REV:C
16.06.30 DWG REV.B DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

M6061T6B1.000X06.00
0

Purchased

No

f

26.7810

6.210526

M6061T6B1 000X06 000******

6061T6 BAR 1.00 X 6.00

LocationLoc QtyLoc Code

MAT003

26.781

m125771

0.53

m127797

5.001

m130013

1.42

m134677

12

m134705

7.83

D2690-11

Manufactured

No

Each

0.0000

2

D2690-11******

Lanyard Assembly

D5346-3

Manufactured

No

Each

0.0000

4

D5346-3******

Bushing

MS17984-C412

Purchased

No

Each

1.0000

2

MS17984-C412******

Pin, Quick Release

LocationLoc QtyLoc Code

ST315

1

m130358

1

ITEM	QTY -041	P/N	DESCRIPTION
	X	D5350-041	R66 FWD BEAM ASSEMBLY
1	2	D2690-11	LANYARD ASSEMBLY
2	1	D5205-1	BRACKET
3	4	D5348-3	BUSHING
4	1	D5350-1	R66 FWD BEAM
5	2	AN3-13A	BOLT
6	2	MS21042L3	NUT, SELF-LOCKING
7	2	MS17984-C412	PIN, QUICK RELEASE
8	4	NAS1149D0316J	WASHER

D5350-041 R66 FWD BEAM ASSEMBLY

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
- 7) WEIGHT: 6.6 lbs
- 8) PRESS FIT D5346-3 INTO D5350-1
- 9) TORQUE MS21042L3 NUTS TO 20-25 in-lb (2.3-2.8 N-m)
- 10) ASSEMBLE D2690-11 WITH MS17984-C412 AS SHOWN

RELEASED
2016-06-29
EEN 16-579

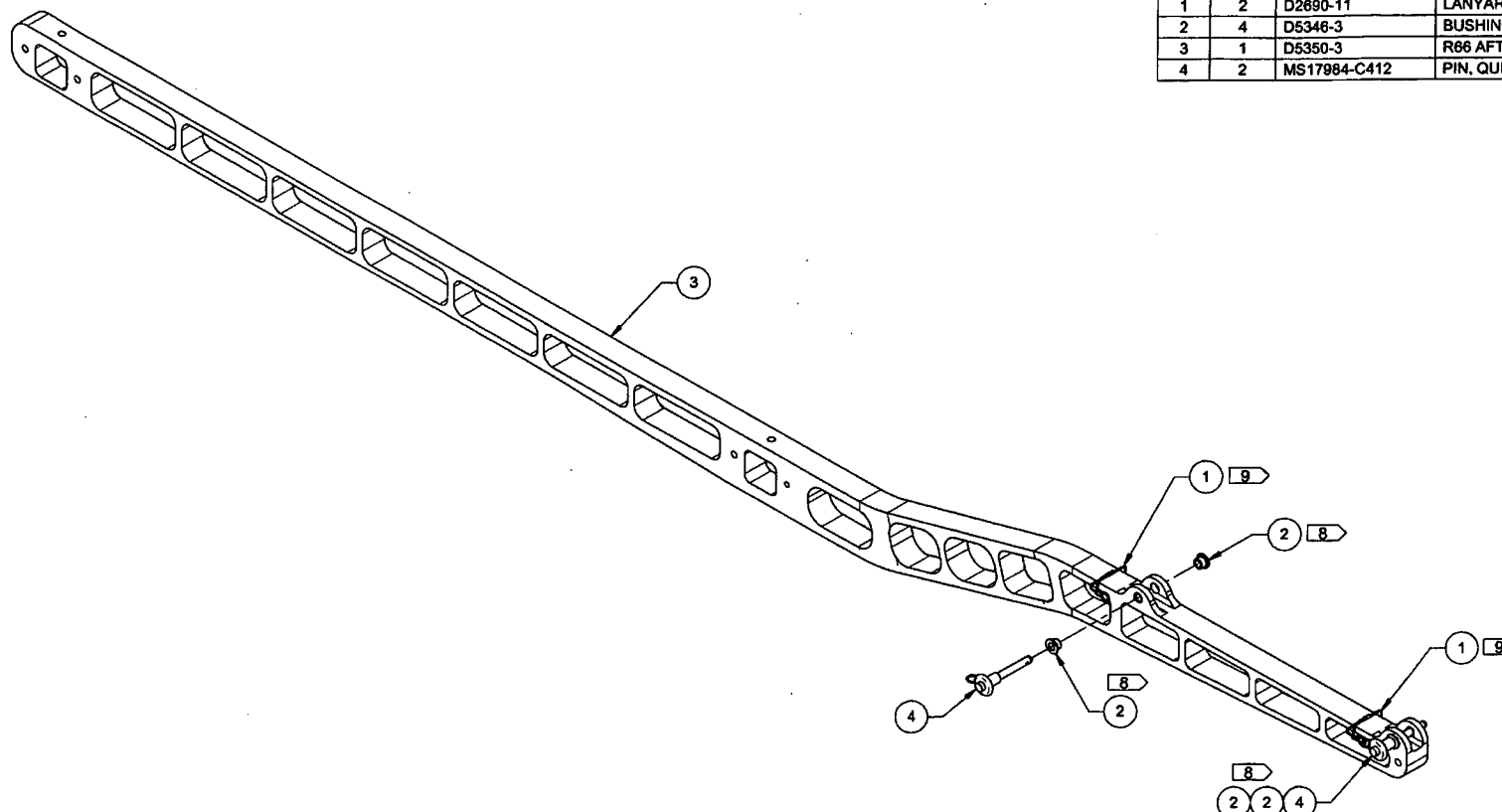
B	REDESIGN -1/-3/-041/-043 (2N A4-1, A4-2, A4-3, A4-4)	RF	16.05.24
A	NEW ISSUE	RF	15.08.10
REV.	DESCRIPTION	BY	DATE
DESIGN	RF		
DRAWN	RF		
CHECKED	VS		
MFG. APPR.	RQ		
APPROVED	HS		
DE APPR.	DS		
DATE	16.05.24		

DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA

DRAWING NO. **D5350** REV. B
SHEET 1 OF 4
TITLE **R66 BEAM ASSEMBLY** SCALE NTS

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ITEM	QTY -043	P/N	DESCRIPTION
	X	D5350-043	R66 AFT BEAM ASSEMBLY
1	2	D2690-11	LANYARD ASSEMBLY
2	4	D5346-3	BUSHING
3	1	D5350-3	R66 AFT BEAM
4	2	MS17984-C412	PIN, QUICK RELEASE



△ B D5350-043 R66 AFT BEAM ASSEMBLY

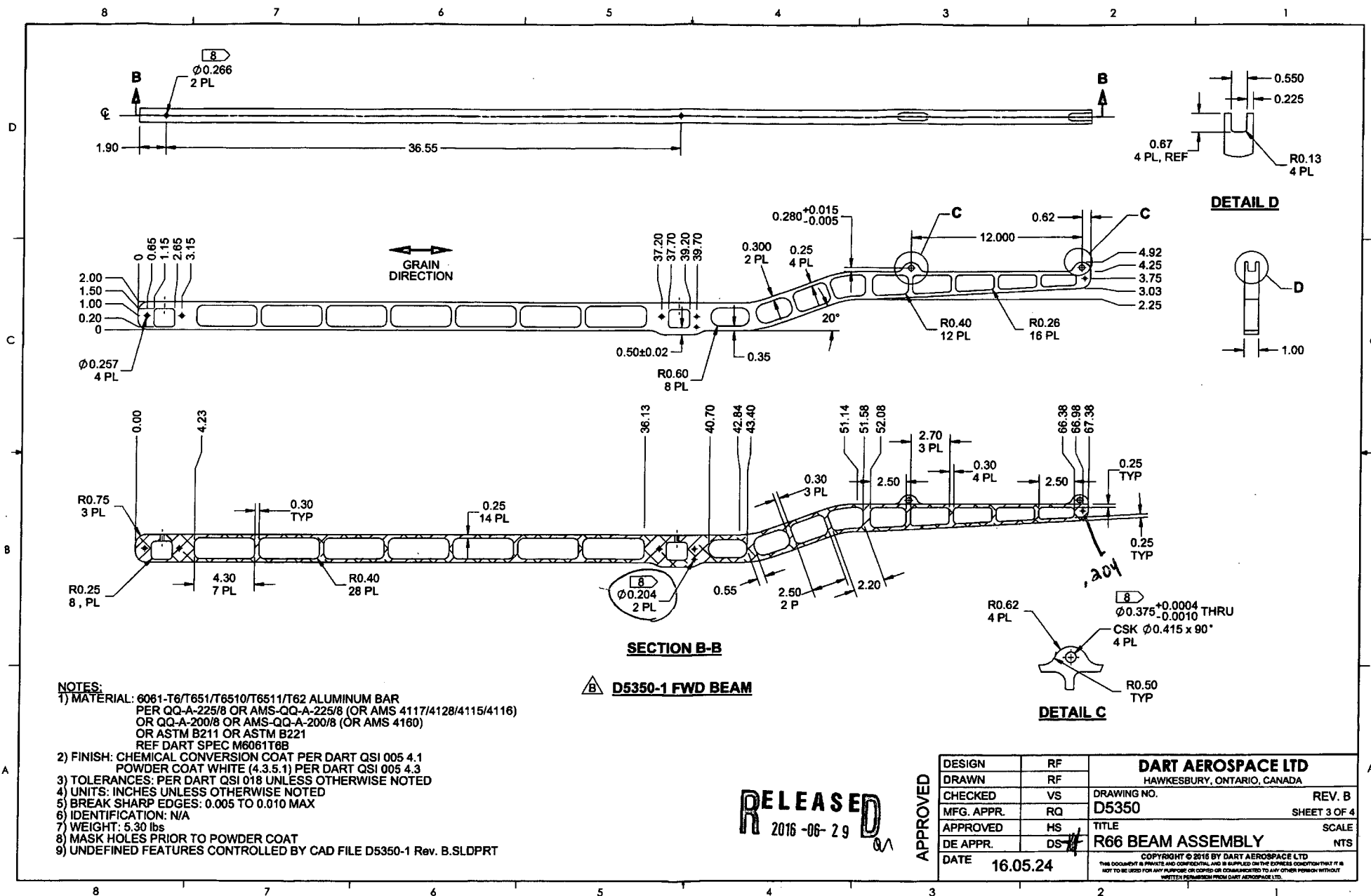
NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
- 7) WEIGHT: 6.6 lbs
- 8) PRESS FIT D5346-3 INTO D5350-3
- 9) ASSEMBLE D2690-11 WITH MS17984-C412 AS SHOWN

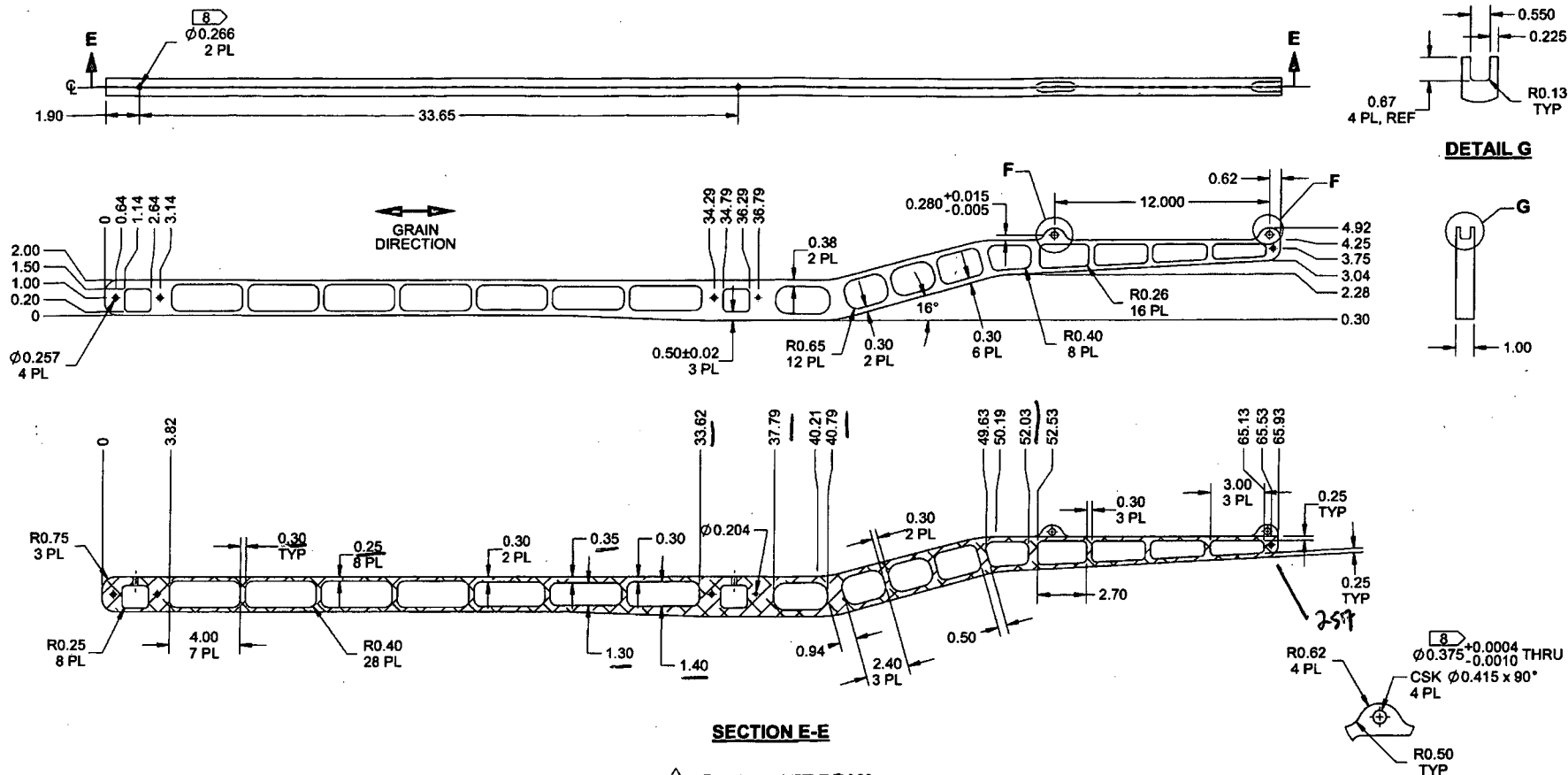
RELEASED
2016-06-29

APPROVED

DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	VS	DRAWING NO. D5350	REV. B
MFG. APPR.	RQ	SHEET 2 OF 4	
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	R66 BEAM ASSEMBLY	NTS
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RELEASED
2016-06-29



- NOTES:**
- 1) MATERIAL: 6061-T6/T6510/T6511/T62 ALUMINUM BAR
PER QQ-A-225/8 OR AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116)
OR QQ-A-200/8 OR AMS-QQ-A-200/8 (OR AMS 4160)
OR ASTM B211 OR ASTM B221
REF DART SPEC M6061T6B
 - 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: N/A
 - 7) WEIGHT: 5.64 lbs
 - 8) MASK HOLES PRIOR TO POWDER COAT
 - 9) UNDEFINED FEATURES CONTROLLED BY CAD FILE D5350-3 Rev. B.SLDPR

D5350-3 AFT BEAM

RELEASED
2016-06-29

APPROVED

DESIGN	RF	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	VS	DRAWING NO.	REV. B
MFG. APPR.	RQ	D5350	SHEET 4 OF 4
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	R66 BEAM ASSEMBLY	NTS
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Jean-Luc Menard

From: David Shepherd
Sent: Monday, June 27, 2016 12:33 PM
To: Denis Maranda; Linda Lacelle; Jean-Luc Menard
Cc: Harvey Siemens; Bill Beckett; Kim Johnston; Roberto Fuentes; Patrick Smith
Subject: R66 Basket Parts Required

All,

While Harvey was on holiday, I worked with Roberto to try to move the R66 basket project forward.

The following drawings have recently been approved in the Vault and are on their way to Hawkesbury with ECN 16-579 for processing :

- 1) D5350 Rev B (R66 Beam Assy)
- 2) D5354 Rev B (R66 Fwd Clamp Assy)
- 3) D5355 Rev B (R66 Aft Clamp Assy)
- 4) D5445 Rev A (Cross Beam Assy)

To re-do the structural test, Roberto would like the following parts in Calgary:

Qty	Part Number	Notes
1	D5445-041	Powder Coat not required, D5445-043 End Caps not required
1	D5445-042	Powder Coat not required, D5445-043 End Caps not required
1	D5350-1	Powder Coat not required, Drill 0.375 holes to 0.257, OK to cut on waterjet
1	D5350-3	Powder Coat not required, Drill 0.375 holes to 0.257, OK to cut on waterjet
1	D5354-1	Anodize not required
1	D5354-2	Anodize not required
2	D5355-1	Anodize not required

Please provide us with a date as to when we can have these parts in Calgary so that we can resume our testing. We will need to receive the parts with a signed Conformity Inspection Record. We will send the draft Conformity Inspection Record closer to the parts being ready for shipping.

David (Roberto's scribe)

DART AEROSPACE LTD		Work Order:	148447
Description: Aft Beam Assembly		Part Number:	5350-043
Inspection Dwg: 5350 Rev: B		Page 1 of 1	

INSPECTION SHEET

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
.25	+/- .020	.259	/		V: p-02	
.30	+/- .030	.307	/		Tape	
.35	+/- .030	.352	/			
.50	+/- .030	.499	/			
1.30	+/- .030	1.301	/			
1.40	+/- .030	1.399	/			
2.40	+/- .030	2.390	/			
2.70	+/- .030	2.695	/			
3.00	+/- .030	3.005	/			
4.00	+/- .030	3.990	/			
3.82	+/- .030	3.82	/			
33.62	+/- .030	33.62	/			
37.79	+/- .030	37.79	/			
40.79	+/- .030	40.79	/			
52.03	+/- .030	52.03	/			
65.13	+/- .030	65.13	/			
65.93	+/- .030	65.93	/			
1.00	+/- .010	1.001	/			
0.257	+0.006 -0.004	0.257	✓		Caliper	JCL-08
1.00	+/- 0.030	1.006	✓			
0.64	+/- 0.030	0.640	✓			
3.14	+/- 0.030	3.140	✓			
34.29	+/- 0.030	34.29	✓		Tape	
36.79	+/- 0.030	36.79	✓			
0.204	+0.005 -0.001	0.204	✓		Caliper	JCL-08
12.000	+/- 0.010	12.000	✓		Tape	
0.62	+/- 0.030	0.615	✓		Caliper	JCL-08
3.75	+/- 0.030	3.740	✓		H. G.	31006
65.53	+/- 0.030	65.53	✓		Tape	
0.280	+0.015 -0.005	0.286	✓		H. B.	31006
0.266	+0.006 -0.001	0.266	✓		Caliper	JCL-08
1.40	+/- 0.030	1.40	✓		Tape	

Measured by:	pc/J.C.L.	Checked by:		QC Inspector:	
Date:	16/07/02	Date:		Date:	

Engineering Approval: (If necessary)		Date:	
---	--	-------	--

Rev	Date	Change	Revised by	Approved
B	14.07.31	New Issue	KJ	

